



Einladung zum Vortrag

“The use of adaptive design in image analysis and materials design”

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Ort: Erwin-Schrödinger-Hörsaal
9. Boltzmannngasse 5, 5. Stock

Abstract:

I will introduce the concept of adaptive design and explain how it has been used in the published literature to guide the design of new solid materials. I will then explain how I intend to use it to guide my soft materials research programme.

As a demonstration, I will then use adaptive design to guide the optimization of an image pre-processing step for data analysis. Here I take a library of 135 confocal micrographs of samples produced during more and less successful experiments. For a, previously unseen, confocal micrograph I would like my software to tell me whether the experiment was a success (this is the performance metric which I seek to optimize). Adaptive design of the image pre-processing step has allowed me to halve my failure rate at this task.

Im Rahmen des Vortrages findet eine Lehrprobe zum Thema
„Brownian Motion: Theory and Experiment“ statt.